

Microlighting Across Australia

Palmerston North microlighter, Jim Fordyce, joined four Aussies crossing Australia east to west and back to the east in August 2014. Twenty-six days, 81 flying hours, 4581 NM, 45 landings. Here, his friend, New Zealand expat Rogin Taylor describes the expedition's meticulous safety preparations.

The departure of three recreational aircraft from The Whitsundays at 8 am on Monday 28 July 2014 was the culmination of a year of fastidious planning.

That trio was made up of my Zenair 701 with an 80 hp engine, a Savannah with a 100 hp engine, and a Kitfox 4, also with a 100 hp engine. Joining us on the return leg was a Jabiru 230 and a 'Bushpig' – a homemade mixture of various STOL aircraft.

All the aircraft had been given the equivalent of a 100-hourly maintenance overhaul: oil, filters, tyres, bearings, seals, and suspension.

On my microlight, I replaced the bungee cord, and the water and oil radiator hoses. I checked, cleaned, and oiled every moving part of the plane. We each carried a tool kit specific to our own aircraft.

Safety equipment included an EPIRB with GPS capability, five litres of water and simple food for 24 hours. Anticipating a possible out landing, or separation from the rest of the group, each plane was self-sufficient and carried essential items.

Every microlight had the ability to recharge phones and iPads using on-board inverters and USB chargers, ensuring navigation and communication options were kept viable.

We looked after each other to make sure everyone got airborne each day and arrived safely. It was reassuring to know that we would not leave anyone behind or stranded, in the event of mechanical problems.

Jim Fordyce (right, pictured here with Rogin Taylor) says their luggage was accurately weighed and the centre of gravity calculated to ensure the equipment was within aircraft limits.

'The next test was to ensure the equipment could be safely stowed in the aircraft luggage locker.'



In the end, the most serious breakdown was a flat tyre during taxiing, which was repaired with a new inner tube.

Before each day's flight there was a confirmation briefing of our destination, waypoints en route and, if we had internet access, a weather check via NAIPS – an Australian system providing NOTAMS, MET, and location briefings, and allowing electronic flight plan submission.

Altitudes ranged between 4500 and 9500 ft depending on the best height for the tailwinds, or to avoid turbulence and terrain.

Radio communication was maintained and monitored; we checked on each other's height and location about every 15 minutes, thus creating our own SARTIME safety net.

Flights were usually about two hours or less before a coffee/tea, fuel or lunch break, ensuring relaxed fatigue-free piloting.

The longest flights were over the Tanami and Simpson Deserts, three hours between fuel stops.

Speaking of fuel: I stuck (with Velcro®) a digital stop watch to the instrument panel. That saved me having to remember to record the time of departure and working out the time flown,

so I could gauge fuel usage – a quick glance at the stopwatch gave me the answer immediately.

The route followed main roads wherever possible. They were often unsealed and remote, but would have allowed easier retrieval or assistance should it have been needed. However, there were numerous cattle stations with good airstrips that could have been used in an emergency. They are not marked on any maps or navigation programmes.

We chose August due to predominant high pressure areas over central Australia that would give tailwind assistance to our planes. The route was planned to take advantage of the anticlockwise winds associated with those high pressure areas.

With the exception of just one day's travel where we had to backtrack for fuel, the group enjoyed good tailwinds for the 26 days of flying.

Every pilot on the trip used OzRunways for their daily navigation. It proved to be extremely easy to use and far exceeded my expectations of a navigational programme.



Jim says the fliers were sometimes unable to refuel at airfields.

"We would have to walk for up to three kilometres in the dust and heat to the nearest roadhouse. We bought enough fuel for the following day's flight plus a one-hour safety margin."



We all had secondary GPS and hard copy maps but I found I didn't need to refer to anything other than OzRunways during the whole trip.

Country strip owners, roadhouse airstrip caretakers, and organisations that looked after regional and community airstrips were all contacted regarding landing, availability of fuel and food, and other provisions.

The publications *ERSA* (En Route Supplement Australia), *Country Airstrip Guide*, and the *AOPA Pilot Touring Guide*, were used during planning.

All planes and pilots made it safely due to great planning, good preparation and good continual communication.

Necessaries

Food: Salt, pepper, two litres of water per day per person, instant soups, noodles, biscuits, 3-in-1 (coffee, sugar, creamer) or tea bags, raisins, etc. Additional daily food was bought when we refueled. For meals, we took advantage of roadhouse fuel stops and pubs that were within walking distance of our landing strip.

Avoid taking sealed bags of potato chips – they can harmlessly explode at altitude, but give you a terrible fright, not to mention the mess!

Utensils: Forks, knives, spoons, one sharp knife, detergent, scourer, paper towel, tongs, frypan, pot, spatula, plastic mugs, matches, plastic bags for garbage. A metho stove is recommended because it is safer than gas, heats more quickly and doesn't blow out in the wind.

Medical: Paracetamol, sticking plasters, Betadine®, bandage, scissors, antihistamine, insect repellent.

In the tent: Sleeping bag, ground protection, pillow, and a waterproof plastic tent cover for night condensation, or rain.

Clothes: In addition to the obvious, a jacket and pants with numerous easily accessible pockets, plastic rain poncho, hat, and sunglasses. Be warned, ground temperatures ranged from below zero to 39 degrees. I bought plastic (medical) shoe covers because morning grassy strips are usually wet from overnight dew, and the covers saved me flying all day in wet shoes and socks.

Plane: Pegs with tie-down ropes, hammer (with fluoro reflective tape on the handle), spare coolant, spare top-up oil,

a basic set of small tools with tape, spare tyre tube, puncture repair kit, bike tyre pump, empty fuel container, fuel funnel, rags, glass cleaner, 12v USB adaptor for charging electric items, small 12v inverter, small bottle to check fuel, fuel dipstick, Velcro – I took 300 mm and used it all – contact adhesive and epoxy. The 20-litre collapsible fuel bag proved very worthwhile. Highly reflective tape was placed on the tail, wings and engine cover.

Other: Headband with LED light, small LED lights on neck halcyards. It is a good idea to put small pieces of reflective tape on items that may be lost in the grass (like the hammer).

EPIRB: I registered the EPIRB and advised the relevant authority of our departure date, route, and duration of our trip.

Navigation: For the trip, I installed OzRunways on an iPad and a moving map programme on an Android tablet. In addition, I installed OzRunways and an additional navigation app on my iPhone. As another backup, I carried paper maps.

The iPad with the navigation programme was attached to the top frame above the windscreen with Velcro, which proved to be an ideal position. Roofing insulation was glued to the back of the iPad to prevent it overheating from the sunlight coming through the front windscreen. A suction brace was secured to the windscreen and attached to the back of the iPad with Velcro to stabilise the screen.

Further Reading

The GAP booklets *Weight and Balance*, *Survival*, and *Secure Your Aircraft* can be downloaded from the CAA web site, www.caa.govt.nz. Email info@caa.govt.nz for printed copies. ■

Jim Fordyce was an RNZAF engineer for 30 years. During that time, he built Taylor Monoplane ZK-CQE, and restored an Avro 626, currently in the Air Force Museum at Wigram. He also built Jodel D11 ZK-ECU, and two Delta Hovey biplanes, ZK-FSN and FSM. He was an independent aircraft inspector and repaired privately owned gliders, and those for the Manawatu/Wanganui Gliding Club and the Ruapehu Gliding Club. He held licences to work on metal, wood and fibreglass aircraft. In 1985 he received an MBE for services to the RNZAF.



Overnight camp on the edge of the Simpson Desert.

"The days were lovely and warm but the nights very cold, one down to -2 degrees," says Jim. "One morning our aircraft was covered in light frost. Most nights we sat around a campfire which was sometimes used to cook the evening meal. The fire would keep us warm as we discussed the next day's flight and plans."